

IN THE CLAIMS

1. (Currently Amended) An intravascular catheter with an exchangeable shaft section, comprising:

a) an elongated tubular proximal shaft section having proximal and distal ends and a first inner lumen extending therein;

b) an elongated distal shaft section having proximal and distal ends, a port in the distal end of the distal shaft section, a second inner lumen extending therein in fluid communication with the first inner lumen in the proximal shaft section and a third inner lumen which is configured to slidably receive a guidewire and which extends therein to the port in the distal end of the distal shaft section[[: and]] ,

e) ~~means to releasably interconnect~~ the distal end of the proximal shaft section ~~and being releasably connected to~~ the proximal end of the distal shaft section to effect fluid communication between the first and second inner lumens; and

c) an inflatable balloon provided on the distal shaft section, having an interior in fluid communication with the second inner lumen in the distal section.

2. (Canceled)

3. (Currently Amended) The intravascular catheter of claim 1 ~~wherein the connector means includes~~ including male threads on an end of one of the shaft sections and female threads on a mating end of the other shaft section which are configured to threadably engage the male threads.

4. (Original) The intravascular catheter of claim 1 wherein the tubular proximal shaft section includes an inner tubular member disposed therein which has a fourth inner lumen which is configured to slidably receive a guidewire therein and which is in communication with the third inner lumen in the distal shaft section.

5. (Currently Amended) The intravascular catheter of claim ~~[[2]]~~ 1 wherein means are provided on the proximal end of the proximal section for directing fluid through the first inner lumen extending therein and the second inner lumen in the distal section into the interior of the balloon.

6. (Original) A dilatation catheter with an exchangeable shaft section, comprising:

a) an elongated proximal shaft section having proximal and distal ends and an first inner lumen extending therein to the distal end;

b) an elongated distal shaft section having proximal and distal ends, a second inner lumen extending from the proximal end of the distal shaft section to a location spaced proximally from the distal end of the distal shaft section, a distal port in the distal end, a third inner lumen extending therein to and being in fluid communication with the distal port and being coextensive and parallel with at least part of the second inner lumen.

c) means to releasably connect the distal end of the proximal shaft section to the proximal end of the distal shaft section to effect fluid communication

between the first inner lumen of the proximal shaft section and the second inner lumen of the distal shaft section; and

d) an inflatable dilatation balloon on the distal shaft section having an interior in fluid communication with the second inner lumen.

7. (Original) The dilatation catheter of claim 6 wherein the connecting means include male threads on an end of one of the shaft sections and matching female threads on a mating end of the other shaft section.

8. (Original) The dilatation catheter of claim 7 wherein the proximal shaft section includes inner and outer tubular members, the distal shaft section includes inner and outer tubular members and the threaded connection means are on mating ends of the inner tubular members of the proximal and distal shaft sections.

9. (Original) The dilatation catheter of claim 7 wherein the proximal shaft section includes inner and outer tubular members, the distal shaft section includes inner and outer tubular members and the threaded connecting means are on mating ends of the outer tubular members of the proximal and distal shaft sections.

10. (Original) A balloon catheter with an exchangeable shaft section, comprising:

a) an elongated proximal shaft section having proximal and distal ends and an first inner lumen extending therein to the distal end;

b) an elongated distal shaft section having proximal and distal ends, a second inner lumen extending from the proximal end of the distal shaft section to a location spaced proximally from the distal end of the distal shaft section, a distal port in the distal end of the distal shaft section, a third inner lumen extending within the distal shaft section to the distal port and a third inner lumen extending therein coextensive and parallel with at least part of the second inner lumen and being in fluid communication with the distal port;

c) means to releasably connect the distal end of the proximal shaft section and the proximal end of the distal shaft section to effect fluid communication between the first inner lumen of the proximal shaft section and the second inner lumen of the distal shaft section; and

d) an inflatable balloon on the distal shaft section having an interior in fluid communication with the second inner lumen.

11. (Original) The balloon catheter of claim 10 including an expandable stent which is mounted about the inflatable balloon in an uninflated condition and which is configured to expand upon the inflation of the balloon.

12. (Currently Amended) A method of treating a patient's body lumen, comprising:

- a) providing an intraluminal catheter which has an elongated catheter shaft, a proximal shaft section, a replaceable distal shaft section ~~and means to releasably connect the replaceable distal section with~~ connected to the proximal shaft section;
- b) advancing the intraluminal catheter through a patient's body lumen until the catheter is disposed within a desired region thereof;
- c) performing an intraluminal procedure within body lumen with the intraluminal catheter;
- d) withdrawing the intraluminal catheter from the patient;
- e) removing the replaceable distal shaft section of the intraluminal catheter;
- f) connecting a replacement distal shaft section to the proximal shaft section; and
- g) advancing the intraluminal catheter with the replacement distal shaft section into the patient's body lumen until the intraluminal catheter is disposed within a desired region of the patient's body lumen.

13. (Currently Amended) A method of treating a patient's body lumen, comprising:

- a) providing a dilatation catheter which has an elongated catheter shaft, a replaceable distal shaft section, a dilatation balloon on the replaceable distal shaft section, and a proximal shaft portion ~~and means to connect the proximal and~~ releasably connected to the distal shaft sections section;

b) advancing the dilatation catheter through the patient's vasculature until the dilatation balloon is disposed within a stenotic region of a patient's artery;

c) withdrawing the dilatation catheter from the patient;

d) removing the replaceable distal shaft section of the catheter; and

e) connecting a replacement distal shaft section to the proximal shaft section, and advancing the catheter with the replacement distal shaft section into the patient's vasculature until the catheter is disposed within a desired region of the patient's vasculature.

14. (Original) The method of claim 13 wherein the replacement distal shaft section has an inflatable balloon with an expandable stent mounted about the inflatable balloon and when the inflatable balloon and stent mounted thereon are disposed within the desired region of the patient's vasculature, inflating the balloon to expand the stent within the desired region of the vasculature and then deflating the balloon so that the catheter can be removed, leaving the expanded stent within the patient's vasculature.

15. (Original) A dilatation catheter comprising:

a) an elongated catheter shaft having proximal and distal ends, a guidewire port in the distal end, a guidewire receiving inner lumen extending to and being in fluid communication with the guidewire port and an inflation lumen extending to location proximal to the distal end;

b) a proximal shaft section having proximal and distal ends and at least part of the inflation lumen extending therein to the distal end of the proximal shaft section; and

c) a replaceable distal shaft section having a proximal end, being releaseably connected by said proximal end of the distal shaft section to the distal end of the proximal shaft section, at least part of the inflation lumen extending within the distal shaft section distally therein from the proximal end of the distal shaft section to the location proximal to the distal end of the catheter shaft; and

d) a dilatation balloon on the distal shaft section surrounding the location having an interior in fluid communication with the portion of the inflation lumen extending within the distal shaft section.

16. (Original) An intravascular catheter comprising:

a) a proximal shaft section having a proximal end, a distal end and an inner lumen extending therein;

b) a distal shaft section having a proximal end, a distal end, a port in the distal end, a second inner lumen extending therein in fluid communication with the inner lumen of the proximal shaft section and a third inner lumen extending parallel and at least partially coextensive with the second inner lumen within the distal shaft section and in fluid communication with the port in the distal end of the distal shaft section; and

c) means to releasably connect the proximal end to the distal shaft section to the distal end of the proximal shaft section.

17. (Original) The intravascular catheter of claim 16 wherein the distal shaft section is releasably connected to the proximal shaft section by means of interconnecting threads on the distal end of the proximal shaft section and on the proximal end of the distal shaft section.

18. (Original) The intravascular catheter of claim 17 wherein the threads on the distal end of the proximal shaft section are male threads and the mating threads on the proximal end of the distal section are female threads.

19. (Original) The intravascular catheter of claim 17 wherein the proximal section is a metallic tube.

20. (Original) The intravascular catheter of claim 19 wherein the metallic proximal shaft section has male threads on the distal end thereof.

21. (Original) The intravascular catheter of claim 17 wherein the means to releasably connect the proximal end of the distal shaft section to the distal end of the proximal shaft section includes an intermediate tubular element which has proximal, and distal ends, threads on at least one of said ends which match the threads on the mating end of one of the shaft sections with the other of said ends of the intermediate tubular element being secured to the mating end of the other shaft section.

22. (Original) The intravascular catheter of claim 21 wherein threads are on the proximal end of the intermediate tubular element and the distal end of the proximal shaft section.

23. (Original) The intravascular catheter of claim 21 wherein threads are on the distal end of the intermediate tubular element and the proximal end of the distal shaft section.

24. Claims 24-31 (Canceled)

32. (New) A method of treating a patient's body lumen, comprising:

a) providing an intraluminal catheter which has an elongated catheter shaft, a proximal shaft section, and a distal shaft section releasably connected to the proximal shaft section;

b) advancing the intraluminal catheter through a patient's body lumen until the catheter is disposed within a desired region thereof;

c) performing an intraluminal procedure within body lumen with the intraluminal catheter; and

d) disengaging the proximal shaft section from the distal shaft section.